

REMARKS

Reconsideration of the pending claims in view of the above amendments and following remarks is respectfully requested.

Claim 7 is amended to correct the spelling of "fluoro-surfactant". Claim 8 is cancelled.

Nonstatutory double patenting rejection

In response to the <u>provisional</u> obviousness-type double patenting rejections of Claims 1, 2, 4-7 and 9-12 over copending Application No. 10/682,288 and of Claims 1, 2 and 4-12 over copending Application No. 10/629,392, both of which copending applications are commonly owned with the present application, a Terminal Disclaimer is filed herewith, on behalf of the assignee, in respect of each of the copending applications. The Terminal Disclaimers are signed by the undersigned Registered Patent Attorney.

Accordingly, it is requested that rejections be reconsidered and withdrawn.

Rejection under 35 USC § 102(b) over US 6,299,302 (DoBoer et al)

Claims 1-5 and 7-11 were rejected under 35 U.S.C. § 102(b) as allegedly anticipated by US 6,299,302 (DeBoer). According to the Office Action, Deboer discloses an ink jet receiver sheet comprising a substrate and an ink receiving layer (col. 2, lines 42-44), which ink receiving layer will be porous because it contains clay along with one or more water-soluble binders, such as polyvinyl alcohol or gelatin (see col. 3, lines 20-56). The Office Action states that the layer includes a hardening agent (i.e. cross-linking agent)(see col. 4, lines 6-22) and a surfactant as instantly claimed (see col. 4, lines 23-30). According to the Office Action, a blowing agent may be present (see col. 4, lines 41-52). Proportions of the surfactant are said to be set forth in Table 1. The Office Action further states that the medium is formed by applying the coating mixture to the support and then curing (see col. 6, lines 23-40), which curing at raised temperature will inherently cause the blowing agent to decompose. For at least the following reasons, Applicants traverse the rejection.

US 6,299,302 (DeBoer) discloses an ink jet receiver which provides variable dot sizes, comprising a substrate, an ink-receiving layer disposed over the substrate and a removable ink delivery layer, which in response to a droplet of ink, absorbs a portion of the ink and delivers another portion of the ink to the ink receiving layer so that a dot is formed in the ink-receiving layer (see column 2, lines 1-8). The ink receiving layer is composed of a number of essential components, including clay, one or more water-soluble binders, one or more hardening agents and optionally colloidal silicas (see column 3, lines 21-23). According to Table 1 of DeBoer, the water soluble polymer component is preferably from 5-12% by weight. Amongst a list of additional materials that may be useful in the ink receiving layers is mentioned blowing agents, although no blowing agents are utilised in the specific embodiments of the invention described therein and no teaching as to the use of the blowing agents is mentioned.

Claim 1, from which claims 2-5 and 7-11 depend, is directed toward an inkjet recording medium comprising a support and an ink receiving layer supported on said support, said ink receiving layer comprising a *porous hydrophilic polymer*.

Whilst it is acknowledged that the ink jet receiver of DeBoer is likely to be porous by virtue of the presence of clay (in an amount of up to 80% by weight according to Table 1) and that the ink jet receiver of DeBoer comprises a hydrophilic polymer, it is submitted that there is no disclosure in DeBoer of a porous hydrophilic polymer as required by present claim 1. As can be seen by reference to page 2, lines 22-27, the porous hydrophilic polymer as required by claim 1 is a foamed polymer material, which may be prepared, for example, by treating a hydrophilic polymer material with a blowing agent. The dye from the ink is then held in pores located within the polymer foam rather than between particles, such as clay or silica, in traditional porous receivers (such as that described in DeBoer). There is no disclosure in DeBoer as to the use the blowing agents would be put in the ink-jet receiver or how it could be applied to achieve a desired effect. Nevertheless, we assert in any case that use in a receiver of a type described in DeBoer of blowing agents in the manner described in the present application would not result in a porous hydrophilic polymer as required by claim 1 of the invention, because the ink jet receiver of DeBoer does not contain sufficient binder material (typically 5-12% by weight according to Table 1). It is submitted, therefore, that claim 1 is novel over DeBoer. Claims 2-5 and 7-11 are also novel by virtue of their dependence upon claim 1.

For at least the above reasons, reconsideration and withdrawal of the rejection are in order.

Rejection under 35 USC § 103(a) over US 6,299,302 (DoBoer et al)

Claims 1-12 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over US 6,299,302 (DeBoer), with reference to the aforementioned rejection of claims 1-5 and 7-11 as anticipated by DeBoer. According to the Office Action, DeBoer discloses supports of paper, polyester, etc. (see col. 3, lines 5-16), from which disclosure it would have been obvious to one of ordinary skill in the art to form the support of polyethylene terephthalate because this is the most commonly used polyester support in the art. The Office Action also states that whilst DeBoer does not disclose the amount of blowing agent that would be present, if included, it would have been obvious to one of ordinary skill in the art to determine the amount for inclusion so that it performs its intended function, and by doing so, results in a medium with desired ink absorption characteristics so that the medium produces a relatively small dot for a given ink drop size (see col. 1, lines 45-51). For at least the following reasons, Applicants traverse the rejection.

US 6,299,302 (DeBoer) discloses an ink jet receiver which provides variable dot sizes, comprising a substrate, an ink-receiving layer disposed over the substrate and a removable ink delivery layer, which in response to a droplet of ink, absorbs a portion of the ink and delivers another portion of the ink to the ink receiving layer so that a dot is formed in the ink-receiving layer (see column2, lines 1-8. The ink receiving layer is composed of a number of essential components, including clay, one or more water-soluble binders, one or more hardening agents and optionally colloidal silicas (see column 3, lines 21-23). According to Table 1 of DeBoer, the water soluble polymer component is preferably from 5-12% by weight. Amongst a list of additional materials that may be useful in the ink receiving layers is mentioned blowing agents, although no blowing agents are utilised in the specific embodiments of the invention described therein and not teaching as to the use of the blowing agents is mentioned.

Claim 1, from which claims 2-12 depend, is directed toward an inkjet recording medium comprising a support and an ink receiving layer supported on said support, said ink receiving layer comprising a *porous hydrophilic polymer*.

As set out above, whilst the ink jet receiver of DeBoer is likely to be porous by virtue of the presence of clay (in an amount of up to 80% by weight according to Table 1), that the ink jet receiver of DeBoer comprises a hydrophilic polymer, but that there is no disclosure in DeBoer of a porous hydrophilic polymer as required by present claim 1, there is no indication or suggestion of the use of a porous hydrophilic polymer in DeBoer. There is no disclosure in DeBoer as to the use the blowing agents would be put in the ink-jet receiver or how it could be applied to achieve a desired effect. Furthermore, there is no indication or suggestion of a beneficial effect that would lead the skilled person to utilise the blowing agent in the ink-jet receiver of DeBoer to arrive at the claimed invention. Indeed, even if the skilled person were led by DeBoer to utilise a blowing agent, for example to provide a medium with desired ink absorption characteristics so that the medium produces a relatively small dot for a given ink drop size, it is submitted that the skilled person would not arrive at an inkjet receiver as presently claimed at least because the addition of a blowing agent to a traditional porous ink jet receiver would not lead to formation of a porous or foamed hydrophilic polymer, due at least to the relatively low proportions of binder present in traditional porous receivers. It is submitted, therefore, that claim 1 is inventive over DeBoer. Claims 2-5 and 7-11 are also inventive by virtue of their dependence upon claim 1

It is respectfully submitted that the claims to which the features that the support may be polyethyelene terephthalate (PET) and the proportion of blowing agent used relate (claims 6 and 11/12 respectfully) are inventive over DeBoer by virtue of their dependence upon patentable claim 1.

Nevertheless, it is submitted that contrary to the Examiner's assertion, even if the skilled person were to be led by DeBoer to utilise a blowing agent to achieve provide a medium with desired ink absorption characteristics so that the medium produces a relatively small dot for a given ink drop size, which is not taught, there would be no reason to suggest that the amount required to achieve that effect would be the same as that required to provide a porous hydrophilic polymer in the manner described in the present application and accordingly the further feature of the amount of blowing agent to use is not obvious over DeBoer.

For at least the above reasons, reconsideration and withdrawal of the rejection are in order.

In view of the foregoing remarks, reconsideration of the aboveidentified patent application is respectfully requested. Prompt and favourable action by the Examiner is earnestly solicited. Should the Examiner require anything further, the Examiner is invited to contact Applicants' representative.

Respectfully submitted

Attorney for Applicants Registration No. 30,721

Chris Konkol

Rochester, NY 14650

Telephone: (585) 722-0452 Facsimile: (585) 477-1148